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In the Matter of	ONIGHAL
Amendment of Section 73.202(b),  Table of Allotments,  FM Broadcast Stations (Allegan, Otsego and Mattawan, Michigan)	MM Docket NoRM
To: The Secretary,	

## PETITION FOR RULEMAKING

Forum Communications, Inc. ("Forum"), licensee of Stations WZUU, Channel 222A, Allegan, Michigan and WQXC-FM, Channel 265A, Otsego, Michigan, herein petitions the Commission to:

- (a) with respect to WZUU, (i) move the allotment used by the station from Allegan, Michigan, to Mattawan, Michigan, (ii) convert that allotment from Channel 222A to Channel 223A and (iii) modify the WZUU license accordingly, and
- (b) with respect to WQXC-FM, (i) move the allotment used by the station from Otsego, Michigan, to Allegan, Michigan and (ii) modify WQXC-FM's license accordingly.

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Federal Communications Commission

The relocation of WZUU from Allegan to Mattawan would require a modification of the station's physical facilities. The change of WQXC-FM's community of license from Otsego to Allegan, however, would not entail any change in the station's physical facilities. In support of this petition, the following is stated:

Forum's proposal will result in greater service to the public by providing Mattawan, an incorporated community with a population of 2,536 persons,<sup>2</sup> with its first local service and by permitting a significant improvement of the facilities of WZUU. WZUU's local transmission service to Allegan (population 1,950) will be replaced by WQXC-FM.<sup>3</sup>

Operating from the reference coordinates proposed (NL 42° 07' 45", WL 85° 43' 13"), WZUU will provide primary service to a population of 259,371 persons in an area 2,516.1 square kilometers. The station currently provides primary service to a population of 72,333 persons in an area of 1,803.7 square kilometers. Thus, implementation of the proposal will mean a 258.6 percent increase in population within the station's primary service contour and a 39.5 percent increase in the area within the station's primary contour. *See* Exhibit A hereto (Engineering Statement of R. Lee Wheeler), at p. 2. There is no 60 dBu overlap between the licensed WZUU operation at Allegan and

<sup>&</sup>lt;sup>1</sup> WQXC-FM is a pre-1989 "grandfathered" short-spaced Class A station. The Commission, however, allows such a station to change its community of license when it is not changing its transmitter site. E.g., Worcester and Westborough, Massachusetts, 18 FCC Rcd 23750 (Assistant Chief, Audio Div. 2003); Fremont and Holton, Michigan, 14 FCC Rcd 17108 (Chief, Allocations Branch 1999). As demonstrated in the attached Engineering Statement of R. Lee Wheeler, Exhibit A hereto, with its present facilities, WQXC-FM places a city-grade signal over all of Allegan. Id., Exhibit 3.

<sup>&</sup>lt;sup>2</sup> All population figures are from the year 2000 Census.

<sup>&</sup>lt;sup>3</sup> WQXC-FM's present community of license, Otsego, Michigan, will continue to be served by WAKV(AM).

the proposed Mattawan facilities. Significantly, however, the area that will lose primary service from WZUU is served by seven or more other aural services. *Id*.

In order for an existing FM station to change its community of license without affording other interested parties an opportunity to file competing expressions of interest, the proposed channel must be mutually exclusive with the existing channel. *Modification of FM and TV Authorizations to Specify a New Community of License*, 4 FCC Red 4870 (1989), *recon. granted in part*, 5 FCC Red 7094 (1990). Moreover, the proposed allotment arrangement must be preferred, under the Commission's Allotment Priorities, over the existing arrangement. *Id.* Mr. Wheeler's attached Engineering Study clearly demonstrates that allotment of Channel 265A to Mattawan is mutually exclusive with the WZUU allotment at Allegan. Exhibit A, p. 1. Moreover, the arrangement Forum proposes will better serve the public in that (a) Mattawan will receive its first local service<sup>4</sup> while Allegan still will have a local transmission service with the change in WQXC-FM's community of license, and (b) WZUU will be able to serve a much larger area and population.

Mattawan is located in Van Buren County and is situated outside of any Census Bureau-designated Urbanized Area. The 70 dBu contour of the proposed station will cover exactly 50 percent of the Kalamazoo Urbanized Area. See Exhibit A, p. 3. Under *Headland, Alabama, and Chattahooche, Florida*, 10 FCC Rcd 10352, 10354 (¶ 11) (1995), if 50 percent or more of the Urbanized Area will be within the city-grade contour of the station proposed for relocation, a showing with respect to the criteria listed in *Faye and Richard Tuck*, 3 FCC Rcd 5374 (1988), is

<sup>&</sup>lt;sup>4</sup> Thus, the proposal would serve FM Allotment Priority 3 as set forth in *Revision of FM Assignment Policies and Procedures*, 90 FCC 2d 88 (1982), recon. denied, 56 RR2d 448 (1983).

required. Such a showing is presented here and clearly demonstrates that Mattawan is an independent community, well deserving of its first local broadcast service.

Under *Tuck*, the Commission considers (a) the degree to which the station will provide coverage not only to the designated community of license but to the nearby metropolis; (b) the size and proximity of the designated community vis-à-vis the central city and (c) the degree to which the proposed community is independent from the central city.

With respect to the first criterion, as noted above, WZUU's 70 dBu contour will encompass only 50 percent of the Kalamazoo Urbanized Area. The Commission on numerous occasions has approved reallotment proposals involving substantially greater levels of city-grade coverage of a nearby Urbanized Area. *E.g., Oraibi, Arizona*, 14 FCC Rcd 13547 (Chief, Allocations Branch 1999) (90 percent); *Mullins, South Carolina*, 14 FCC Rcd 10516 (Chief, Allocations Branch 1999) (67 percent).

With respect to the second criterion, Mattawan's population (2,536) is 3.29 percent of the population of the central city, Kalamazoo (77,145). This percentage is larger than approved in other cases. *E.g.*, *Centre Hall, Pennsylvania*, DA 05-44, ¶4 (Asst. Chief, Audio Div., released January 10, 2005) (1.5 percent); *Ada, Oklahoma*, 11 FCC Red 16869 (Chief, Allocations Branch 1996) (0.9 percent); *Scotland Neck, North Carolina*, 10 FCC Red 11066 (Chief, Allocations Branch 1995) (3.1 percent). Furthermore, the reference point for Mattawan is 11.6 miles (18.7 kilometers) from the reference point for Kalamazoo. *See* Exhibit B. In numerous cases, the Commission has approved change of community proposals where the new community was closer to the central city

than is the case here. E.g., Centre Hall, Pennsylvania, supra (10 miles); Mullins, South Carolina, 14 FCC Rcd 10516 (M.M. Bur. 1999) (4 miles).

With respect to the third criterion, the information presented here clearly establishes Mattawan's status as an independent community. In fact, Mattawan satisfies all eight factors listed in *Tuck*.<sup>5</sup>

#### 1. Many Employment Opportunities are Available in Mattawan for its Residents.

Mattawan has a thriving economy. According to a research survey conducted in the spring of 2003, 21.29 percent of local residents work in Mattawan. See Exhibit E, p. 5. Some of the largest employers in Mattawan include: Engineered Plastic Components, Inc. (which produces injection molded plastic components and assemblies), 615 employees; MPI Research (engaged in research toxicology services), 650 employees; and Mattawan Consolidated Schools, 408 employees. See Exhibit D. Mattawan is the home of a variety of other businesses that provide diverse employment

<sup>&</sup>lt;sup>5</sup> The factors considered include: (1) the extent to which the community residents work in the larger metropolitan area, rather than the specified community; (2) whether the smaller community has its own newspaper or other media that covers the community's needs and interests; (3) whether community leaders and residents perceive of the specified community as being an integral part of, or separate from, the larger metropolitan area; (4) whether the specified community has its own local government and elected officials; (5) whether the smaller community has its own local telephone book provided by the local telephone company or zip code; (6) whether the community has its own commercial establishments, health facilities, and transportation systems; (7) the extent to which the specified community and the central city are part of the same advertising market; and (8) the extent to which the specified community relies on the larger metropolitan area for various municipal services such as police, fire protection, schools, and libraries. The Commission has deemed a community to be independent when a majority of these factors demonstrate that the community is distinct from the urbanized area. *Parker and St. Joe, Florida*, 11 FCC Rcd 1095 (1996); *Jupiter and Hobe Sound, Florida*, 12 FCC Rcd 3570 (1997).

opportunities in the industrial, manufacturing, retail, public service and transportation areas. *See* Exhibit C. Indeed, according to 2002 Census Bureau data, Mattawan's zip code (49071) has 150 business establishments with a total of 2,744 employees. *Id.*, p.1.

#### 2. Mattawan is Served by Area Newspapers.

The Courier Leader is a weekly community newspaper serving the entire Van Buren County area, including Mattawan. It is based out of Paw Paw, Michigan, six miles west of Mattawan. The Courier Leader provides news, editorials, sports, local community coverage, government news, religious content, news of civic organizations, classified listings and advertising for the Mattawan and Paw Paw areas. See Exhibit F.

## 3. <u>Mattawan Residents Consider their Community to be Separate from Kalamazoo.</u>

Community leaders perceive Mattawan to be separate from Kalamazoo and other areas. The Mattawan Area Business Association promotes local businesses through publication of the Mattawan Area Business Locator Guide. See Exhibit Q. Mattawan residents also demonstrate their affiliation with their community through a variety of activities and organizations. Mattawan, for example, boasts a Lions Club, a Veterans of Foreign Wars chapter and a variety of youth organizations, including the Cub Scouts, the Boy Scouts, the Girl Scouts, Little League, a youth soccer league and a local chapter of Students Against Drunk Driving (SADD). See Exhibit G. There are several churches in Mattawan where residents can participate in religious worship and congregate with other community members who share their faith. See Exhibit H.

#### 4. Mattawan has its own Local Government and Elected Officials.

Mattawan traces its history back to a federal land grant in 1839. Lyman Lawrence filed the first town plat in 1850, naming the area "Mattawan." *See* Exhibit I. Mattawan has its own elected officials and local government, operating in a council-village manager format. There are seven elected Council Members, out of which are elected a Village President, Village Treasurer, and Village Clerk. *See* Exhibit J. Meetings of the Village Council, which are open to the public, are held on the 2<sup>nd</sup> and 4<sup>th</sup> Monday of each month. *See* Exhibit K. During the bi-monthly meetings the Council provides oversight and conducts business related to administration, parks, police, fire, public works, building and grounds departments, among others. *See* Exhibit L.

#### 5. <u>Mattawan has its own Zip Code</u>.

Mattawan's government, school, business and residential listings are located in a separate section of the Verizon Paw Paw phone book. *See* Exhibit N. Residents of Mattawan can use this book to locate telephone numbers and addresses without having to rely on the Kalamazoo phone book. *Id.* Mattawan has its own post office located at 55680 North Main Street and its own zip code, 49071. *See* Exhibit O.

#### 6. Mattawan has its own Commercial Establishments and Health Facilities.

Mattawan has its own commercial establishments and health services. Located in Mattawan are a clinic and out-patient surgical unit, both of which are part of Lakeview Hospital situated about

six miles away in Paw Paw. See Exhibit S. Mattawan has its own pharmacy and optometrist. See Exhibit T. With respect to commercial establishments, Mattawan has numerous and diverse businesses that cater to local residents. See Exhibit P. The Mattawan Business Association publishes a pamphlet which contains a map of various business's locations and affords an opportunity for local businesses to advertise to Mattawan residents. See Exhibit Q, p. 3. Regarding transportation services, Van Buren Public Transit is a county-wide public transportation system and is available to Mattawan area residents. See Exhibit R.

#### 7. Businesses can Advertise to Mattawan Residents Through Local Media.

Two weekly papers, *The Courier Leader* and *The Paw Paw Flash*, provide an avenue through which Mattawan businesses may advertise to residents of the community without having to rely on Kalamazoo media. *See* Exhibit U.

#### 8. Mattawan is Not Dependent on Kalamazoo for Municipal Services.

Mattawan has its own schools, library, police, fire and sewer services. The Mattawan Consolidated School District is well established and has a current enrollment of approximately 3,500 students in kindergarten through 12<sup>th</sup> grade. See Exhibit X. The school district publishes a newsletter for all Mattawan residents that provides information about recent and upcoming school events, workshops, student activities, and fund-raising drives. *Id.*, p. 2. The Antwerp Sunshine Library is located in Mattawan, providing residents with the opportunity to check out books and other media. See Exhibit Y. Mattawan has its own police force with five full-time and five part-time

officers. The police headquarters is located in Mattawan's Village Hall, and is led by Donald L. VerHage, Chief of Police. See Exhibit V. There is also a 30 member all-volunteer fire department in Mattawan, providing fire protection and rescue services. Id., p. 2. Mattawan devotes 54 percent of its total budget to public safety. See Exhibit M. Mattawan also operates its own water distribution system and has its own local sewer line. See Exhibit N.

#### **CONCLUSION**

To summarize, the public interest clearly would be served by adoption of the rulemaking proposal presented. Mattawan, a vibrant community, would receive its first local broadcast service and Allegan will retain a local broadcast service. Moreover, WZUU, operating as a Mattawan station will be able to provide primary service to 259,371 persons, more than a 250 percent increase over the population within the station's current primary contour.

If this rulemaking proposed is adopted, Forum shall promptly file construction permit applications to, respectively, relocate Station WZUU to Channel 223A at Mattawan and change WQXC-FM's community of license to Allegan. Upon grant of those construction permits, Forum shall promptly construct WZUU's modified facilities and file a license application and shall promptly file a license application to reflect the change of WQXC-FM's community of license to Allegan. Forum recognizes and accepts that the Commission will specify that WZUU may not begin operation under Program Test Authority at Mattawan until WQXC-FM has commenced operation under Program test Authority at Allegan.

WHEREFORE, in light of all circumstances present, it is respectfully requested that a Notice of Proposed Rule Making be issued proposing that the FM Table of Allotments, Section 73.202(b) of the Commission's Rules, be amended as follows:

<b>Community</b>	Present Channel No.	Proposed Channel No.
Mattawan, MI		223A
Allegan, MI	222A	265A
Otsego, MI	265A	

**FURTHERMORE**, the license of WZUU should be modified to specify operation on Channel 265A at Mattawan, Michigan, and the license of Station WQXC-FM should be modified to specify operation on Channel 223A at Allegan, Michigan.

FORUM COMMUNICATIONS, INC.

Bv:

Matthew H. McCormick

Its Counsel

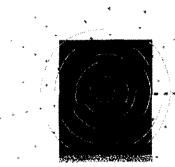
Reddy, Begley & McCormick, LLP 1156 15<sup>th</sup> Street, N.W., Suite 610 Washington, D.C. 20005-1770 (202) 659-5700

March 25, 2005

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## WHEELER BROADCAST CONSULTING

#### Engineering Report

Forum Communications, Inc. Amendment to 47 CFR 73.202 (b)

This consultant has been retained on behalf of Forum Communications, Inc. (Forum), Licensee of WZUU (FM) in Allegan, MI and WQXC-FM in Otsego, MI to provide technical support to a petition for rule making which seeks to amend 47 CFR 73.202 (b) of the Commission's Rules.

#### **Proposed Amendment**

WZUU (FM) is a pre Docket 8090 allocation that is presently licensed on Channel 222 A to Allegan, MI. In this petition it is proposed that WZUU (FM) be re-allocated from Allegan to the community of Mattawan, MI on Channel 223A as that community's first local service. The petitioner recognizes that, at present, WZUU (FM) is the sole service in Allegan, MI and so as to not deprive Allegan, MI of local service it is further proposed that the community of license for WQXC-FM be changed from Otsego, MI to Allegan, MI. Otsego, MI will continue to receive local service from WAKV (AM).

Mattawan, MI is listed in the United States Census with reference coordinates of 42° 12′ 50″ N by 85° 47′ 15″ W. The point nearest Mattawan where Channel 223 A meets the minimum spacing requirements of 47 CFR 73.207 is located at 42° 07′ 45″ N by 85° 43′ 13″ W which serves as the proposed Mattawan allocation reference point. The allocation reference point is suitable for a FM transmission facility. The allocation reference point is 10.93 km SE of Mattawan at a bearing of 149.5°. The allocation point is 50.28 km distant from the licensed Channel 222 A WZUU operation and, as such, is mutually exclusive with the presently licensed operation. Exhibit 1 of this report is a search of the Commission's CDBS database which demonstrates that the proposed Mattawan allocation site is in full compliance with the spacing requirements of 47 CFR 73.207.

Exhibit 2 of this report is a digitally generated map which shows the corporate limits of Mattawan, MI as well as a 16.2 km radius, 70 dBu allocation reference circle centered at the allocation reference site. As shown in Exhibit 2, the community of Mattawan is entirely contained within the reference circle.

As shown above, the proposed Channel 223 A allocation at Mattawan, MI is compliant with 47 CFR 73.207 and 47 CFR 73.315 of the Commission's Rules.

Allegan, MI is listed in the United States Census with reference coordinates of 42° 31' 42" N by 85° 50' 44" W. WQXC-FM is also a pre Docket 8090 Class A operation and, as licensed with 3 kW facilities, WQXC-FM illuminates the entire community of Allegan with a signal in excess of 70 dBu. As such, there would be no discontinuance of service to Allegan, MI. Exhibit 3 of this report shows the 70 dBu contour of WQXC-FM, as licensed, so as to demonstrate that the city grade service requirements of 47 CFR 73.315 are in fact met.

#### Other Aural Services in Loss Areas

There is no 60 dBu overlap between the licensed WZUU (FM) operation at Allegan and the proposed 60 dBu reference circle from the allocation facilities at Mattawan. As such, the entire service area from the licensed WZUU operation would lose an aural service. Exhibit 4 of this report is a digitally generated map which shows the presently licensed 60 dBu service area of WZUU (FM) and the 60 dBu contours of an additional 20 FM radio stations which cover, either partially or in its entirety, the loss area associated with the reallocation of WZUU. As shown in Exhibit 4, there is no point in the loss area that receives fewer than seven other aural services.

#### Comparative Service

As licensed, WZUU provides 60 dBu service to an area encompassing 1,803.7 km² which contains a population of 72,333 persons. The proposed Channel 223 A operation at Mattawan would provide an additional aural service to an area of 2516.1 km² that has a population of 259,371 persons. The increase in area is 712.4 km² which is an increase of 39.5% and the increase in population is 187,038 persons which is an increase of 258.6%.

<sup>&</sup>lt;sup>1</sup> The additional FM radio stations shown in Exhibit 4 do not reflect all of the additional aural services available in the loss area. So as to limit the clutter on the map exhibits only a sufficient number to conclusively demonstrate that the area would remain well served were included.

#### **Urbanized Areas**

The city of Mattawan, MI is not located in an Urbanized Area. The nearest Urbanized Area is the Kalamazoo, MI Urbanized Area. Exhibit 5 of this report details the 70 dBu reference contour of the proposed Channel 223 A operation at Mattawan and the Kalamazoo Urbanized Area. Exhibit 5 was printed and measured with a K&E model 620000 Polar Planimeter which revealed that the overlap with of the urbanized area would be exactly 50%.

#### Conclusion

The public interest is clearly served by the reallocation of Channel 222 A from Allegan, Mt to Channel 223A at Mattawan, MI and to further reallocate Channel 265 A from Otsego, MI to Allegan, MI. The proposed amendment would not only provide Mattawan and its 2536 residents with a first local service but it would further provide an additional aural service to a population totaling 259,371 persons. Allegan, MI and Otsego, MI would continue to have local service it is therefore appropriate to amend the Table of Allotments, 47 CFR 73.202 (b) as follows:

Community	Present Allocation	Proposed Allocation
Mattawan, MI		223A
Allegan, MI	222A	265A
Otsego, MI	265 A	

#### Certification

All information in this report and its associated exhibits is true and accurate to the best of my belief. Having had numerous matters before the Commission, my qualifications are a matter of record.

March 23, 2005	R. Lee Wheeler
Date	R. Lee Wheeler

### Wheeler Broadcast Consulting 3718 W. 52nd Terrace - Shawnee Mission KS 66205

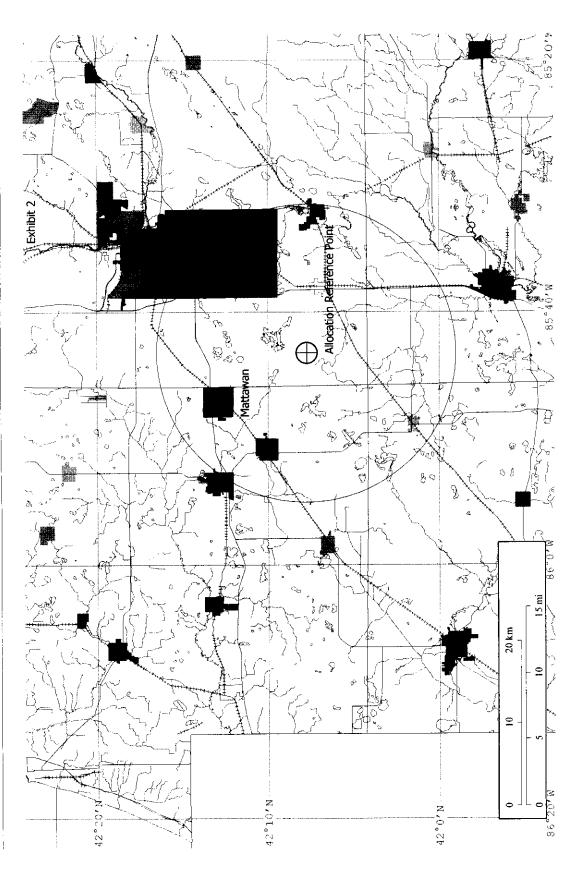
WZUU Mattawan, MI

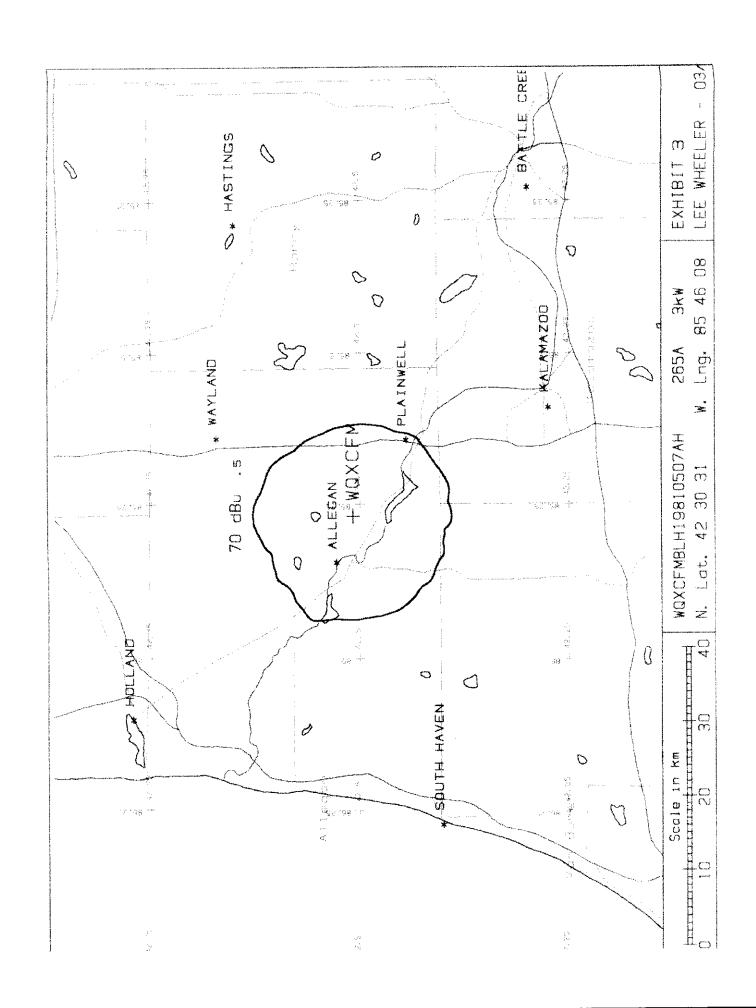
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Call Channel Location N. Lat. W. Lng.	Power	Dist Azi HAAT	FCC	Margin
WZUU LIC 222A Allegan	MI	50.28 356.8	72.0	-21.72
WYVN LIC 224A Saugatuck 42 41 10 86 10 05 NCX Midwest Communications In	MI 3.300 kW	72.01 329.5 114 M	72.0	0.01
WDOWFM LIC 221A Dowagiac 41 59 52 86 03 14 CN	MI 3.300 kW	31.23 242.2 91 M	31.0	0.23
42 34 52 85 45 17 CN Forum Communications, Inc. WYVN LIC 224A Saugatuck 42 41 10 86 10 05 NCX Midwest Communications, In WDOWFM LIC 221A Dowagiac 41 59 52 86 03 14 CN Jason Communications, Inc. WNDVFM LIC 225B South Bend 41 36 20 86 12 45 CN Artistic Media Partners, I	IN 12.000 kW	71.08 215.2 268 M	69.0	2.08
WNDVFM CP 225B South Bend 41 36 20 86 12 46 CN	IN 12.000 kW	71.09 215.2 268 M	69.0	2.09
WVKS LIC 223B Toledo 41 31 55 83 35 37 CN Citicasters Licenses, L.p. 981208 APP 220A Level Park 42 22 57 85 19 02 DVN	OH 50.000 kW	188.71 109.9 146 M	178.0	10.71
981208 APP 220A Level Park 42 22 57 85 19 02 DVN Pensacola Christian College	MI 0.100 kW	43.57 49.5 27 M 81208ME	31.0	12.57
Pensacola Christian Colleg AP220 APP 220A Level Park 42 22 56 85 17 34 CX Broadcasting For The Chall	MI 0.140 kW BNPED19	45.11 51.2 20 M 991116AIT	31.0	14.11
Broadcasting For The Chall 971217 APP 223A Newaygo 43 18 37 85 54 44 CX	MI 2.250 kW BMPH200	132.14 353.3 165 M 30609ACU	115.0	17.14
Donald James Noordyk 971217 APP 223A Newaygo 43 18 37 85 54 44 CX Donald James Noordyk AP220 APP 220A Richland	MI 2.250 kW BMPH200	132.14 353.3 165 M	115.0	17.14
42 28 54 85 22 31 EX	5.000 KW	100 M		
Living Proof, Inc. AP220 APP 220A Richland 42 28 54 85 22 31 DVN	6 000 kW	оо м		
Living Proof, Inc. 971217 CP 223A Newaygo 43 20 42 85 51 48 CN Donald James Noordyk WQKO.A APP 220B1 Howe 41 33 15 85 23 06 ZCX CSp. International	MI 6.000 kW BPH1997	135.57 355.1 100 M	115.0	20.57
WQKO.A APP 220B1 Howe 41 33 15 85 23 06 ZCX Csn International	IN 15.000 kW BPED199	69.67 156.4 99 M 81203IA	48.0	21.67
Csn International RDEL DEL 224A Charlotte 42 38 31 84 47 55	MI 6.000 kW	94.90 52.7 100 M	72.0	22.90
WQTX LIC 224A Charlotte 42 38 31 84 47 55 CN Rubber City Radio Group	BMLH199	40610KA		
WKFRFM LIC 277B Battle Creek 42 21 20 85 20 28 CN Cumulus Licensing Corp.	MI 50.000 kW	40.15 51.0 147 M	15.0	25.15

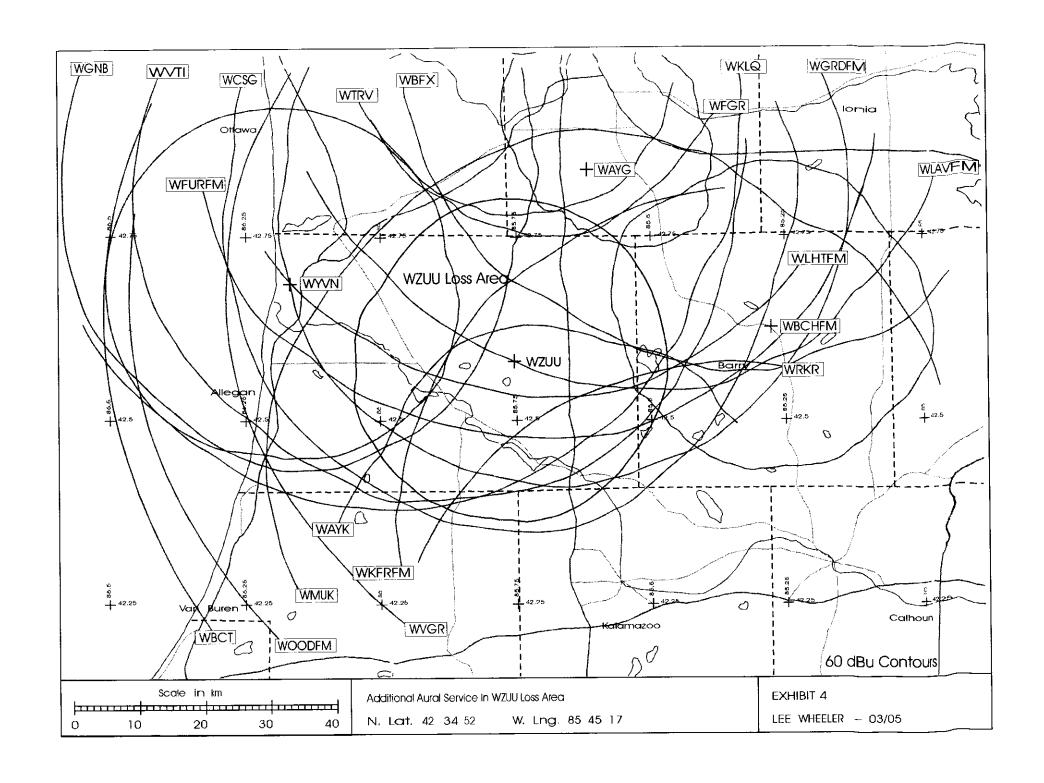
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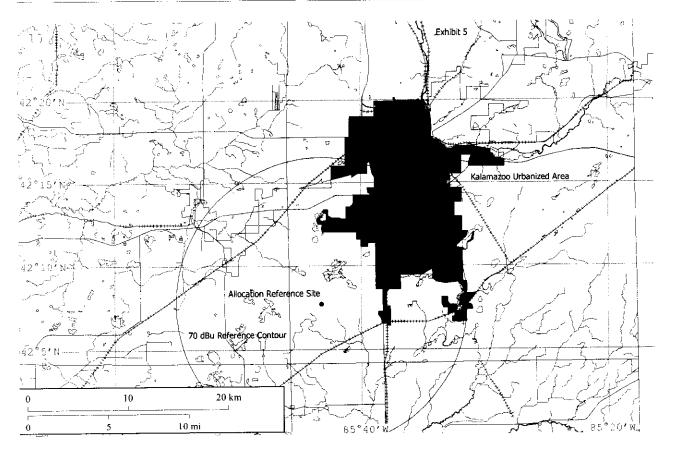
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WOKO LI	C 220A	Howe	IN	61.35	150.2	31.0	30.35
41 38 59	85 21	12 NCN	3.000 kW	91	М		
Csn I	nternatio	onal Howe 16 ZCN	BLED199	40831KA			
WQKO.A AP	P 220A	Howe	IN	61.62	150.4	31.0	30.62
41 38 47	85 21	16 ZCN	6.000 kW	10	0 M		
Csn I	nternatio	onal Ashley 703 CN	BPED199	B1203IA			
WJSZ LI	C 223A	Ashley	MI	156.58	41.1	115.0	41.58
43 10 56	84 27	7 03 CN	2.000 kW	12	2 M		
Curwo	od Broado	asting Compa	BLH19940	0323KB			
WPWX LI	C 222B	Hammond	IN	159.93	250.3	113.0	46.93
41 37 50	87 31	40 DEN	50.000 kW	150	M C		
Dontr	on, Inc.	Fort Wayne . 44 CX	BLH1986:	1103KD			
WFWI.A AP	P 222A	Fort Wayne	IN	121.26	158.8	72.0	49.26
41 06 39	85 11	. 44 CX	2.350 kW	16:	2 <b>M</b>		
Pathf	inder Com	munications	BPH2003	0206ABT			
WFWI.A AP	P 222A	Fort Wayne	IN	121.26	158.8	72.0	49.26
41 06 39	85 11	. 44 CX	2.350 kW	16	2 M		
Pathf	inder Com	munications	BPH20030	0206ABT			
WFWI LI	C 222A	Fort Wayne 46 CN	IN	121.65	158.9	72.0	49.65
		munications					
WHME LI	C 276A	South Bend 2 51 CN	IN	71.39	215.1	10.0	61.39
41 36 11	86 12	2 51 CN	3.000 kW	91	М		
Lesea	Broadcas	sting Corpora Hillsdale 3 10 CN	BLH1983.	LUUSAD	100 3	21.0	<i>C</i> 1 <i>E</i> 0
WCSRFM LI	C 221A	Hilisdale	MI	92.52	103.7	31.0	61.52
41 55 41	84 38	3 10 CN	6.000 kW	/4	M		
WCSI,	INC	Kokomo 52 CN	BLH19910	1918KB	101 5	115 0	70 00
WZWZ LI	C 223A	KOKOMO	TN	18/.80	191.5	115.0	72.80
40 28 18	86 08	) 52 CN	6.000 KW	99	ĺΔĬ		
Mid-ai	merica Ka	dio Grp Of K Dekalb 5 16 CX	BTH13320	)120KB	064.6	170 0	24.05
WDEK LI	C 223B	Dekalb	1L	252.95	264.6	178.0	74.95
41 52 33	88 45	) 16 CX	ZU.UUU KW	14: 1100caac	9 141		
Wdek	Licensing	, Inc.	BMLH2001				











В

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#### You Entered:

## MATTAWAN, MI

MATTAWAN, MI

Latitude: N 42 12 34 Longitude: W 85 47 4 Map of Coordinates

Another Community?

**City or Community:** 

**U.S. State or Possession:** 

AK -

(State is a required field)

Submit Request

Clear Entry



#### You Entered:

KALAMAZOO, MI

KALAMAZOO, MI

Latitude: N 42 17 30 Longitude: W 85 35 13 Map of Coordinates

Another Community?

City or Community:

**U.S. State or Possession:** 

ΑK

(State is a required field)

Submit Request

Clear Entry





#### **Audio Division**

Distance, Bearing Between Two Sets of Coordinates

(202)-418-2700

FCC > MB > Audio Division > Distance Computations and Find Terminal Coordinates

## Find Distance and Azimuths Between 2 Sets of Coordinates -- Results

#### Distance between

N Latitude 42 12 34.00, W Longitude 85 47 4.00 (Point 1)

and N Latitude 42 17 30.00, W Longitude 85 35 13.00 (Point 2)

#### 18.684 kilometers; 11.609 miles

Azimuth from point 1 to point  $2 = 60.58^{\circ}$ Azimuth from point 2 to point  $1 = 240.71^{\circ}$ 

#### Another Distance Computation?

Use Sprong to find the terminal or end coordinates, given a bearing and a distance.

This program is located at http://www.fcc.gov/fcc-bin/audio/distance.html

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Please send comments via standard mail to the Federal Communications Commission, Consumer and Governmental Affairs Bureau, 445 12th Street, S.W., Washington, D.C., 20554. Questions can also be answered by calling the FCC's National Call Center, toll free, at 1-888-Call FCC (1-888-225-5322).

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